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PTOL-90A (Rev. 04/07)

BEFORE THE BOARD OF PATENT APPEALS

AND INTERFERENCES

Application Number: 10/567,717
Filing Date: February 08, 2006
Appellant(s): Louis Robert Litwin

Jeffrey D. Hale
For Appellant

Examiner's Answer

This is in response to the Appeal Brief filed 11/24/2008 appealing from the Office

Action (Final Rejection) mailed 05/28/2008 and the Office Action (Advisory Action)

mailed 08/27/2008.

(1)   *Real Party in Interest*

A statement identifying by name the real party in interest is contained in the brief.

(2)   *Related Appeals and Interferences*

The examiner is not aware of any related appeals, interferences, or judicial

proceedings, which will directly affect or be directly affected by or have a bearing on the

Board's decision in the pending appeal.

(3)   *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4)   *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection

contained in the brief is correct.

(5)   *Summary of Claimed Subject Matter*

The summary of claimed subject matter contained in the brief is correct.

(6)   *Grounds of Rejection to be Reviewed on Appeal*

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7)   *Claims Appendix*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8)   *Evidence Relied Upon*

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal:

Hsu (US 2004/0205158 A1) published on 10/14/2004.

Applicant's Admitted Prior Art (Specification, page 10, lines 15-18).

Rao (US 2004/0264395 A1) published on 12/30/2004.

Sundar et al. (US 2003/0134650 A1) published 07/17/2003.

(9)   *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   **Claims 1-4, 6-7, 9-12 and 15-21 are rejected under 35 U.S.C. 102(e) as being**

unpatentable by Hsu (2004/0205158 A1), in view of Applicant's Admitted Prior Art

(AAPA).

3.   As to claim 1, **Hsu** teaches a method, comprising:

scanning, by a wireless local area network scanner in a wireless device, to detect

the presence of a wireless local area network WLAN *(the Mobile Station MS tunes to*

*WLAN frequencies and **actively or passively scans** for the WLAN beacon, i.e., to*

detect a WAN, using a WLAN tuner) **(Hsu, paragraphs [0064] and [0078-0080])**;

detecting the presence of said wireless local area network by employing said

wireless local area network scanner *(the MS tunes to WLAN frequencies and uses*

active or passive scanning to detect WLAN coverage) **(Hsu, paragraphs [0043],**

[0061] and [0064]);

contacting a base station of said wireless local area network by the wireless local

area network baseband circuit in said wireless device in response to detection of said

wireless local area network to request location of said base station *(upon receipt of the*

WLAN request from the MS, the Base Station BS may transmit the information such as

location identification for the WLAN) **(Hsu, paragraphs [0046], [0050] and [0052])**; and

receiving location of said wireless local area network *(the Base Station BS*

transmits location information identifies the Access Points APs supporting the WLAN)

(Hsu, paragraphs [0046], [0050] and [0052]).

Hsu does not **explicitly** teach to identify energy fluctuations without a wireless

local area network baseband circuit being activated to process data.

However, as well-known to one of ordinary skill in the art, Applicant's Admitted

Prior Art (**AAPA, i.e., Applicant's Specification**) teaches that the frequency reference

accuracy specified in WLAN standards (e.g., $^{\pm}25$ ppm as specified in the IEEE 802.11b

standard) can allow the phase-locked loop (PLL) circuit to operate without automatic

frequency control (AFC) provided by the WLAN baseband circuitry and as such, the

WLAN baseband circuitry does not have to be activated to detect the presence of the

WLAN, thereby conserving power and saving battery life in the mobile device

(Specification, page 10, lines 15-18).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to incorporate the frequency reference as specified in

the IEEE 802.11 standards **(i.e., prior art)** to allow the PLL circuit to operate without

AFC provided by the WLAN baseband circuitry, as disclosed by the **AAPA**, into the

teachings of **Hsu**. One would be motivated to do so to conserve power and to save battery life in the mobile device **(Specification, page 10, lines 15-18)**.

4.   As to claim 2, **Hsu-AAPA** teaches the method of claim 1, further comprising logging, on said wireless device, said location of said base station for future reference **(Hsu, paragraphs [0076] and [0083])**.

5.   As to claim 3, **Hsu-AAPA** teaches the method of claim 1, wherein said location comprises a map coordinate location of said base station **(Hsu, paragraph [0052])**.

6.   As to claim 4, **Hsu-AAPA** teaches the method of claim 1, wherein said location comprises one of a street address and longitude/latitude coordinates for said base station **(Hsu, paragraph [0052])**.

7.   As to claim 6, **Hsu-AAPA** teaches method of claim 2, wherein said logging of said location is one of automated logging and a manual logging **(Hsu, paragraphs [0027] and [0030])**.

8.   As to claim 7, **Hsu-AAPA** teaches the method of claim 1, wherein said location comprises global position coordinates **(Hsu, paragraph [0052])**.

9.   Claims 9-12 are corresponding wireless device claims of method claims 1, 3-4

and 7; therefore, they are rejected under the same rationale.

10.   As to claim 15, **Hsu-AAPA** teaches the wireless device of claim 9, further

comprising the step of displaying a location of a base station of a wireless local area

network logged previously that is near said wireless device *(i.e., the display may provide*

the AP location in the context of a local map in a graphical manner or as a textual

message) **(Hsu, paragraph [0052])**.

11.   Claims 16-20 are corresponding mobile device claims of method claims 1-4 and

7; therefore, they are rejected under the same rationale.

12.   Claim 21 is a corresponding mobile device claim of wireless device claim 15;

therefore, it is rejected under the same rationale.

13.   **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu-**

AAPA, and further in view of Rao (US 2004/0264395 A1).

14.   As to claim 5, **Hsu-AAPA** teaches the method of claim 1, but does not explicitly

teach comparing a MAC address of said base station to a database of known locations

of base stations or wireless local area networks and not requesting a location if the

contacted said base station is already in said database.

In the same field of endeavor, **Rao** teaches a wireless network client 2 scans the network for discovering wireless access points, creates and stores a list of detected wireless access points containing entries for each discovered wireless local network identifier such as SSID in an 802.11 environment, the MAC address and the signal-to-noise ratio of the corresponding detected wireless access point **(Rao, paragraphs [0010] and [0052-0053])**.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the feature of adding discovered wireless access points information to a client database, as disclosed by **Rao**, into the teachings of **Hsu-AAPA**. One would be motivated to do so to provide automatic configuration of wireless network client in a wireless local area network environment without the need for user intervention, i.e., automatically obtaining the network identifier and other network related information for the local wireless access point in order to select the best available wireless local area network for accessing **(Rao, paragraph [0058])**.

15.   Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu-AAPA, and further in view of Sundar et al. (US 2003/0134650 A1), hereinafter "Sundar".

16.   As to claim 8, **Hsu-AAPA** teaches the method of claim 1, but does not explicitly teach detecting signature sequences from a wireless local area network.

In an analogous art, **Sundar** teaches detecting signature sequences from a wireless local area network *(a mobile station 310 may initiate a detection 402 of RF energy/waves, i.e., detection of energy fluctuations, in the relevant spectrum from a wireless local area network)* **(Sundar, paragraphs [0055-0058])**.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of detecting signature sequences *(detecting RF energy/waves, i.e., energy fluctuations)* from a wireless local area network, as disclosed by **Sundar**, into the teachings of **Hsu-AAPA**. One would be motivated to do so to detect the presence of a WLAN by detecting the RF energy in the permitted 802.11a/b/g spectrum **(Sundar, paragraph [0055])**.

17.   Claim 14 is a corresponding wireless device claim of method claim 8; therefore, it is rejected under the same rationale.

(10)   ***Response to Arguments***

In the Argument, Applicants argued in substance that

(B1.) "Claims 1-4, 6 and 7 are patentable over Hsu in view of AAPA, as the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data is not disclosed or rendered obvious by the prior art" **(as recited in page 9 of the Appeal Brief)**.

and

"Despite the Examiner's assertions otherwise, the cited section does not admit that identifying energy fluctuations without a WLAN baseband circuit being activated to process data is well-known in the art. The cited section indicates only that a frequency reference accuracy, such as $\pm$25 ppm as specified in WLAN standards is known in the art. Concerning energy fluctuations and detection of a WLAN without having a baseband circuit activated to process data, the Specification recites conclusions that the inventors have conceived. The cited section does not admit that anything regarding operation of a PLL circuit, automatic frequency control, carrier recovery, identifying energy fluctuations, or deactivating a WLAN baseband circuit during WLAN detection is prior art. Accordingly, the feature of identifying energy fluctuations without a WLAN baseband circuit being activated to process data is not admitted prior art. As such, the cited section of the Specification, taken singly or in combination with Hsu, does not in any way render claim 1 unpatentable" **(as recited from pages 11-12 of the Appeal Brief)**.

As to point **(B1.)**, Examiner respectfully disagrees noting that by reading page 10, lines 15-18 of the specification (emphasis added):

"The **frequency reference accuracy specified in WLAN standards** (e.g., $\pm$25 ppm as specified in the IEEE 802.11b standard) **can allow the phase-locked loop (PLL) circuit to operate without automatic frequency control (AFC)** provided by the

WLAN baseband circuitry. **As such, the WLAN baseband circuitry 208 does not have to be activated to detect the presence of the WLAN**, thereby conserving power and saving battery life in the mobile device."

A person of ordinary skill in the art would **readily** recognized that the Applicants **admitted/agreed** that "the frequency reference accuracy specified in WLAN standards (e.g., $^{\pm}25$ ppm as **specified in the IEEE 802.11b standard**) can allow the phase-locked loop (PLL) to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry" and "the WLAN baseband circuitry 208 does not have to be activated to detect the presence of the WLAN, thereby conserving power and saving battery life in the mobile device".

Hence, Examiner respectfully submits that the feature of identifying energy fluctuations without a WLAN baseband circuit being activated to process data is considered as applicant's admitted prior art (i.e., obvious to one of ordinary skill in the art). As such, the cited section of the Specification, in combination with Hsu, does suggest and/or render claim 1 unpatentable.

Additionally, in order to support that "The frequency reference accuracy specified in WLAN standards (e.g., $^{\pm}25$ ppm as specified in the IEEE 802.11b standard)" can allow the phase-locked loop (PLL) to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry", as admitted by AAPA, is well-known to one ordinary skill in the art, Examiner respectfully submits that **"Power Efficient Channel Scheduling In a Wireless Network" by Bah et al. (US 7,110,783)** (cited in PTO-892 of the previous Office Action mailed 12/26/2007 and 05/28/2008 as supportive reference)

teaches that the messages passed between the low power transceiver 100 and 102 and host transceiver 212 are transmitted over the lower power, low bandwidth, control channel, and not a primary communication channel (such as an 802.11 channel) **the standard high power NIC cards** **of the wireless computing devices 220 and 222 need not be used for facilitating the presence detection and registration process, resulting in less power usage by the devices** *(i.e., to identify energy fluctuations without a wireless baseband circuit being activated to process data)* **(Bah et al, col. 7, line 64 – col. 9, line 33)**.

Furthermore, Examiner respectfully submits that in view of the Supreme Court's recent opinion in *KSR Int'l Co. v. Teleflex Inc.,* "What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under U.S.C 103." *KSR Int'l Co. v. Teleflex, Inc.,* 127 S. Ct. 1727, 1742 (2007). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* at 1740. In *KSR*, the Supreme Court reaffirmed that "[w]hen a patent 'simply arranges old elements with each performing the same function it had been known to perform' and yields no more than one would expect from such an arrangement, the combination is obvious." *KSR,* 127 S. Ct. 1740 (quoting *Sakraida v. Ag Pro, Inc.,* 425 U.S. 273, 282 (1976)). Moreover, "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product ... of ordinary skill and common sense." *KSR,* 127 S. Ct. at 1742.

This reasoning is applicable here. Clearly, in the wireless networking art, there are a finite number of identified, predictable solutions available to a person of ordinary skill, as set forth in the IEEE 802.11b standard, which is **admitted/agreed** by the AAPA (Specification, page 10, lines 15-18) that "the frequency reference accuracy specified in WLAN standards *(e.g., ±25 ppm as **specified in the IEEE 802.11b standard**)* can allow the phase-locked loop (PLL) to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry" and "the WLAN baseband circuitry 208 does not have to be activated to detect the presence of the WLAN, thereby conserving power and saving battery life in the mobile device". Thus, in accordance with established industry standard wireless networking protocols, Examiner finds that Hsu's teachings in view of AAPA would have reasonably lead an artisan having ordinary skill and common sense to combine the teachings in the manner suggested to lead to the anticipated success *(thereby conserving power and saving battery life in the mobile device)*.

Therefore, **Hsu** in view of **AAPA** (Applicant Admitted Prior Art) does render claim 1 obvious because *"**The frequency reference accuracy specified in WLAN standards** (e.g., ±25 ppm as specified in the IEEE 802.11b standard) **can allow the phase-locked loop (PLL) circuit to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry"**,* and *"the **WLAN baseband circuitry** 208 **does not have to be activated to detect the presence of the WLAN,** thereby conserving power and saving battery life in the mobile device"*, thus the description in the Specification, page 10, lines 15-18 concerning PLL circuit operation without AFC can be relied upon in the rejection of claim 1.

(**C1.**) "Claim 5 is patentable over Hsu in view of AAPA in further view of Rao, as the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data is not disclosed or rendered obvious by the prior art" **(as recited in page 17 of the Appeal Brief)**.

As to point (**C1.**), Examiner respectfully disagrees noting that as mentioned in point (**B1.**) above, "the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data" is disclosed/suggested or rendered obvious by **Hsu** in view of **AAPA** because, as admitted in the specification, page 10, lines 15-18: *"**The frequency reference accuracy specified in WLAN standards** (e.g., $\pm$25 ppm as specified in the IEEE 802.11b standard) **can allow the phase-locked loop (PLL) circuit to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry"*, and *"the **WLAN baseband circuitry** 208 **does not have to be activated to detect the presence of the WLAN**, thereby conserving power and saving battery life in the mobile device"*, thus, claim 5 is unpatentable under 35 USC 103(a) over **Hsu** in view of **AAPA**, and in further view of **Rao** (as in points [13.] and [14.] of the Rejection above).

(**D1.**) "Claims 9-12 and 15 are patentable over Hsu in view of AAPA, as the feature of detecting the presence of a WLAN by identifying energy fluctuations without performing carrier recovery is not disclosed or rendered obvious by the prior art" (**as recited in page 19 of the Appeal Brief**).

As to point (**D1.**), Examiner respectfully disagrees noting that as mentioned in point (**B1.**) above, "the feature of detecting the presence of a WLAN by identifying energy fluctuations without performing carrier recovery" is disclosed/suggested or rendered obvious by **Hsu** in view of **AAPA** because, as admitted in the specification, page 10, lines 15-18: *"**The frequency reference accuracy specified in WLAN standards** (e.g., $^{\pm}25$ ppm as specified in the IEEE 802.11b standard) **can allow the phase-locked loop (PLL) circuit to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry"*, and *"the **WLAN baseband circuitry** 208 **does not have to be activated to detect the presence of the WLAN,** thereby conserving power and saving battery life in the mobile device"*, thus, claims 9-12 and 15 are unpatentable under 35 USC 103(a) over **Hsu** in view of **AAPA** (as in points [9.] and [10.] of the Rejection above).

(**E1.**) "Claims 8 and 14 are patentable over Hsu in view of AAPA in further view of Sundar, as the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data is not disclosed or rendered obvious by the prior art" **(as recited in page 20 of the Appeal Brief)**.

As to point (**E1.**), Examiner respectfully disagrees noting that as mentioned in point (**B1.**) above, "the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data" is disclosed/suggested or rendered obvious by **Hsu** in view of **AAPA** because, as admitted in the specification, page 10, lines 15-18: *"**The frequency reference accuracy specified in WLAN standards** (e.g., $\pm$25 ppm as specified in the IEEE 802.11b standard) **can allow the phase-locked loop (PLL) circuit to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry"*, and *"the **WLAN baseband circuitry** 208 **does not have to be activated to detect the presence of the WLAN**, thereby conserving power and saving battery life in the mobile device"*, thus, claims 8 and 14 unpatentable under 35 USC 103(a) over **Hsu** in view of **AAPA**, and in further view of **Sundar** (as in points [15.] and [17.] of the Rejection above).

(**F1.**) "Claims 16-21 are patentable over Hsu in view of AAPA, as the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data is not disclosed or rendered obvious by the prior art" **(as recited in page 23 of the Appeal Brief)**.

As to point (**F1.**), Examiner respectfully disagrees noting that as mentioned in point (**B1.**) above, "the feature of detecting the presence of a WLAN by identifying energy fluctuations without a WLAN baseband circuit being activated to process data" is disclosed/suggested or rendered obvious by **Hsu** in view of **AAPA** because, as admitted in the specification, page 10, lines 15-18: *"**The frequency reference accuracy specified in WLAN standards** (e.g., ± 25 ppm as specified in the IEEE 802.11b standard) **can allow the phase-locked loop (PLL) circuit to operate without automatic frequency control (AFC) provided by the WLAN baseband circuitry"*, and *"the **WLAN baseband circuitry** 208 **does not have to be activated to detect the presence of the WLAN**, thereby conserving power and saving battery life in the mobile device"*, thus, claims 16-21 are unpatentable under 35 USC 103(a) over **Hsu** in view of **AAPA** (as in points [11.] and [12.] of the Rejection above).

For the above reasons, it is believed that the rejections should be sustained.

(11)   Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

Respectfully submitted,

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